

CLAIM LISTINGS

Pursuant to 37 CFR §1.121(c), this listing of the claims, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Please amend claims 1, 7, 13, 14, 18, 19, 23 and 27 and cancel claims 3, 25 and 30 as follows:

1 1. (Currently Amended) ~~In a voice over Internet protocol system including a terminal and~~
2 ~~a session initiation protocol server, a~~ A terminal registration method using a session initiation
3 protocol, comprising:

4 transmitting a media access control address to ~~[[the]]~~ a session initiation protocol server by
5 ~~[[the]]~~ a terminal in a voice over Internet protocol system including the terminal and the session
6 initiation protocol server;

7 retrieving a database comprising terminal information of the terminal in accordance with the
8 media access control address, and transmitting the terminal information of the terminal
9 corresponding to the received media access control address to the terminal by the session initiation
10 protocol server receiving the media access control address from the terminal;

11 transmitting a register message including the obtained terminal information and designating
12 a first predetermined value with a field value of a telephone number field to the session initiation
13 protocol server by the terminal;

14 retrieving the database, and transmitting a second field value of the telephone number field
15 and a user registration information in accordance with the terminal information received from the
16 terminal to the terminal by the session initiation protocol sever receiving the register message
17 including the terminal information and designating the first predetermined value with the field value

18 of the telephone number field from the terminal;
19 requesting the session initiation protocol server to perform registration by using the received
20 user registration information by the terminal; and
21 performing the registration of the terminal, and transmitting a registration success message
22 to the terminal by the session initiation protocol server receiving a registration request signal
23 including the user registration information from the terminal.

1 2. (Original) The method of claim 1, wherein the terminal information includes Internet
2 protocol address, Subnet, and domain name server information of the terminal.

3. (Cancelled)

1 4. (Original) The method of claim 1, wherein the first predetermined value transmitted to
2 the session initiation protocol server from the terminal in the step of transmitting the register
3 message is "0000".

1 5. (Original) The method of claim 1, wherein the first predetermined value transmitted to
2 the session initiation protocol server from the terminal in the step of transmitting the register
3 message is a predetermined unused telephone number.

1 6. (Original) The method of claim 1, wherein the step of transmitting the media access
2 control address to the session initiation protocol server from the terminal of the step of transmitting
3 the media access control address, the media access control address is transmitted by using a

4 broadcasting method.

1 7. (Currently Amended) The method of claim 1, wherein the step of retrieving the database,
2 and transmitting terminal information of the terminal comprises the sub-steps of:

3 transmitting the received media access control address to the location server by the proxy
4 server receiving the media access control address from the terminal;

5 retrieving [[a]] the database, and transmitting terminal information in accordance with the
6 received media access control address to the proxy server by the location server receiving the media
7 access control address from the proxy server; and

8 transmitting the received terminal information to the terminal by the proxy server receiving
9 the terminal information from the location server.

1 8. (Original) The method of claim 1, wherein the step of retrieving the database, and
2 transmitting user registration information comprises the sub-steps of:

3 parsing the register message, and requesting the location server to transmit the user
4 registration information in accordance with the terminal information by the proxy server receiving
5 the register message including the terminal information and designating the first predetermined value
6 with the field value of the telephone number field from the terminal;

7 retrieving the database, and transmitting the user registration information in accordance with
8 the terminal information to the proxy server by the location server requested to transmit the user
9 registration information from the proxy server; and

10 transmitting the received user registration information to the terminal by the proxy server
11 receiving the user registration information from the location server.

1 9. (Original) The method of claim 8, wherein a message used to transmit the user
2 registration information to the terminal from the proxy server is "401 Error Message".

1 10. (Original) The method of claim 8, wherein a message used to transmit the user
2 registration information to the terminal from the proxy server is an error message.

1 11. (Original) The method of claim 1, wherein the step of performing the registration of the
2 terminal, and transmitting a registration success message comprises the sub-steps of:

3 transmitting a received registration message to the location server by the proxy server
4 receiving the registration message including the user registration information from the terminal;

5 comparatively analyzing the registration message by parsing the message, performing
6 registration if the message is successful, and transmitting a success message to the proxy server by
7 the location server; and

8 transmitting the received success message to the terminal by the proxy server.

1 12. (Original) The method of claim 1, wherein a request message includes at least a sequence
2 number, an identification, and an media access control address and a response message includes at
3 least a sequence number, an identification, and a reason.

1 13. (Currently Amended) A computer-readable medium having computer-executable
2 instructions for performing a method, the method comprising:

3 transmitting a first address to a session initiation protocol server by a terminal;

transmitting terminal information of the terminal corresponding to the received first address to the terminal by the session initiation protocol server receiving the first address from the terminal by retrieving a database containing terminal information of the terminal in accordance with the media access control address;

transmitting a register message including the obtained terminal information and designating a first predetermined value with a field value of a telephone number field to the session initiation protocol server by the terminal;

transmitting a second predetermined value of the telephone number field and user registration information in accordance with the terminal information received from the terminal to the terminal by the session initiation protocol sever receiving the register message including the terminal information and designating the first predetermined value with the field value of the telephone number field from the terminal;

requesting the session initiation protocol server to perform registration by using the received user registration information by the terminal; and

performing the registration of the terminal, and transmitting a registration success message to the terminal by the session initiation protocol server receiving a registration request signal including the user registration information from the terminal.

14. (Currently Amended) The computer-readable medium having computer-executable instructions for performing the method of claim 13, wherein the step of retrieving the database, and transmitting terminal information of the terminal comprises the sub-steps of:

transmitting the received first address to the location server by the proxy server receiving the first address from the terminal;

6 retrieving [[a]] the database, and transmitting terminal information in accordance with the
7 received first address to the proxy server by the location server receiving the first address from the
8 proxy server; and

9 transmitting the received terminal information to the terminal by the proxy server receiving
10 the terminal information from the location server.

1 15. (Original) The computer-readable medium having computer-executable instructions for
2 performing the method of claim 14, wherein the step of retrieving the database, and transmitting user
3 registration information comprises the sub-steps of:

4 parsing the register message, and requesting the location server to transmit the user
5 registration information in accordance with the terminal information by the proxy server receiving
6 the register message including the terminal information and designating the first predetermined value
7 with the field value of the telephone number field from the terminal;

8 retrieving the database, and transmitting the user registration information in accordance with
9 the terminal information to the proxy server by the location server requested to transmit the user
10 registration information from the proxy server; and

11 transmitting the received user registration information to the terminal by the proxy server
12 receiving the user registration information from the location server.

1 16. (Original) The computer-readable medium having computer-executable instructions for
2 performing the method of claim 15, wherein a message used to transmit the user registration
3 information to the terminal from the proxy server is an error message.

1 17. (Original) The computer-readable medium having computer-executable instructions for
2 performing the method of claim 15, wherein the step of performing the registration of the terminal,
3 and transmitting a registration success message comprises the sub-steps of:

4 transmitting a received registration message to the location server by the proxy server
5 receiving the registration message including the user registration information from the terminal;

6 comparatively analyzing the registration message by parsing the message, performing
7 registration if the message is successful, and transmitting a success message to the proxy server by
8 the location server; and

9 transmitting the received success message to the terminal by the proxy server.

1 18. (Currently Amended) A computer-readable medium having stored thereon a data
2 structure, comprising:

3 a first field containing data representing transmitting a media access control address to a
4 session initiation protocol server by a terminal;

5 a second field containing data representing retrieving a database comprising terminal
6 information of the terminal in accordance with the media access control address, and transmitting
7 terminal information of the terminal corresponding to the received media access control address to
8 the terminal by the session initiation protocol server receiving the media access control address from
9 the terminal;

10 a third field containing data representing transmitting a register message including the
11 obtained terminal information and designating a first predetermined value with a field value of a
12 telephone number field to the session initiation protocol server by the terminal;

13 a fourth field containing data representing retrieving a database, and transmitting a second

14 predetermined value of the telephone number field and user registration information in accordance
15 with the terminal information received from the terminal to the terminal by the session initiation
16 protocol sever receiving the register message including the terminal information and designating the
17 first predetermined value with the field value of the telephone field from the terminal;

18 a fifth field containing data representing requesting the session initiation protocol server to
19 perform registration by using the received user registration information by the terminal; and

20 a sixth field containing data representing performing the registration of the terminal, and
21 transmitting a registration success message to the terminal by the session initiation protocol server
22 receiving a registration request signal including the user registration information from the terminal.

1 19. (Currently Amended) The computer-readable medium having stored thereon the data
2 structure of claim 18, wherein the second field comprises:

3 a first sub-field containing data representing transmitting the received media access control
4 address to the location server by the proxy server receiving the media access control address from
5 the terminal;

6 a second sub-field containing data representing retrieving ~~[[a]]~~ the database, and transmitting
7 terminal information in accordance with the received media access control address to the proxy
8 server by the location server receiving the media access control address from the proxy server; and

9 a third sub-field containing data representing transmitting the received terminal information
10 to the terminal by the proxy server receiving the terminal information from the location server.

1 20. (Original) The computer-readable medium having stored thereon the data structure of
2 claim 19, wherein the fourth field comprises:

3 a first sub-field containing data representing parsing the register message, and requesting the
4 location server to transmit the user registration information in accordance with the terminal
5 information by the proxy server receiving the register message including the terminal information
6 and designating the first predetermined value with the field value of the telephone number field from
7 the terminal;

8 a second sub-field containing data representing retrieving the database, and transmitting the
9 user registration information in accordance with the terminal information to the proxy server by the
10 location server requested to transmit the user registration information from the proxy server; and

11 a third sub-field containing data representing transmitting the received user registration
12 information to the terminal by the proxy server receiving the user registration information from the
13 location server.

1 21. (Original) The computer-readable medium having stored thereon the data structure of
2 claim 20, wherein the sixth field comprises:

3 a first sub-field containing data representing transmitting a received registration message to
4 the location server by the proxy server receiving the registration message including the user
5 registration information from the terminal; and

6 a second sub-field containing data representing comparatively analyzing the registration
7 message by parsing the message, performing registration if the message is successful, and
8 transmitting a success message to the proxy server by the location server.

1 22. (Original) The computer-readable medium having stored thereon the data structure of
2 claim 21, wherein the sixth field further comprises:

3 a third sub-field containing data representing transmitting the received success message to
4 the terminal by the proxy server.

1 23. (Currently Amended) A voice over Internet protocol system, comprising:
2 a session initiation protocol server; and
3 a terminal transmitting a media access control address to the session initiation protocol
4 server,
5 with the session initiation protocol server retrieving a database comprising terminal
6 information of the terminal in accordance with the media access control address and transmitting
7 terminal information of the terminal corresponding to the received media access control address to
8 the terminal,
9 with the terminal transmitting a register message including the obtained terminal information
10 and designating a first predetermined value with a field value of a telephone number field to the
11 session initiation protocol server,
12 with the session initiation protocol server retrieving the database, and transmitting a second
13 predetermined value of the telephone number field and user registration information in accordance
14 with the terminal information received from the terminal to the terminal and designating the first
15 predetermined value with the field value of the telephone number field from the terminal,
16 with the terminal requesting the session initiation protocol server to perform registration by
17 using the received user registration information, and
18 with the session initiation protocol server performing the registration of the terminal and
19 transmitting a registration success message to the terminal.

1 24. (Original) The system of claim 23, wherein the terminal information includes Internet
2 protocol address, Subnet, and domain name server information of the terminal.

25. (Cancelled)

1 26. (Original) The system of claim 25, wherein the first predetermined value transmitted to
2 the session initiation protocol server from the terminal in the step of transmitting the register
1 message is an unused telephone number.

1 27. (Currently Amended) A method, comprising:
2 obtaining a terminal information, with obtaining the terminal information ~~comprising of~~
3 performed by:
4 obtaining a certain set of information of a terminal and a server by using a media
5 access control address;
6 transmitting the media control address by the terminal and at least one of a plurality
7 of access points to a proxy server;
8 requesting by the proxy server to a location server to transmit terminal information
9 in accordance with the received media access control address;
10 transmitting by the location server to the terminal of certain information retrieved
11 from a database of the terminal in accordance with the media access control address with the
12 database comprising terminal information of the terminal in accordance with the media access
13 control address; and
14 transmitting the certain information retrieved from the database of the terminal to the

15 access points and the access points ~~transmitting~~ transmitting the certain information of the terminal and
16 a certain information of the access point to the terminal;

17 obtaining a telephone number, with the obtaining of the telephone number ~~comprising~~
18 performed by:

19 retransmitting the received terminal information to the proxy server through the
20 access points when the terminal receives the terminal information;

21 setting the telephone number to a predetermined unused telephone number;

22 considering the authentication of the telephone number from the terminal by the proxy
23 server by the setting of the telephone number to the predetermined unused telephone number;

24 requesting by the proxy server, the location server to transmit a telephone number and
25 registration information of the corresponding terminal by transmitting the received terminal
26 information to the location server;

27 transmitting by the location server, the telephone number and the registration
28 information of the corresponding terminal to the proxy server by retrieving a database;

29 transmitting the received telephone number and registration information to the access
30 point; and

31 transmitting by the ~~access~~ access point the telephone number and registration
32 information of the terminal to the terminal by inputting information obtained within an error
33 message; and

34 registering the terminal.

1 28. (Original) The method of claim 27, with the registering of the terminal, comprising:
2 receiving by the terminal, the telephone number and the registration information from the

3 proxy server performing a registration process after setting new values with the terminal encoding
4 the received telephone number and the registration information to a predetermined format;
5 transmitting the telephone number and the information to the access point by using a register
6 method;
7 sending by the access point, the telephone number and the registration information to the
8 proxy server;
9 receiving by the proxy server, a register message from the terminal comparing the message,
10 and when the message is successful, the proxy server transmitting the register message to the
11 location server, to perform registration; and
12 transmitting by the location server a predetermined successful message after performing the
13 registration, and when any problem is generated, the location server transmitting a predetermined
14 error message, and informing of a reason for the error message.

1 29. (Original) The method of claim 28, wherein the terminal information includes Internet
2 protocol address, Subnet, and domain name server information of the terminal.

30. (Cancelled)

1 31. (Original) The method of claim 27, with the registering of the terminal, comprising:
2 receiving by the terminal, the telephone number and the registration information from the
3 proxy server performing a registration process after setting new values with the terminal encoding
4 the received telephone number and the registration information to a predetermined format;
5 transmitting the telephone number and the information to the access point by using a register

6 method;

7 sending by the access point, the telephone number and the registration information to the
8 proxy server;

9 receiving by the proxy server, a register message from the terminal comparing the message,
10 and when the message is successful, the proxy server transmitting the register message to the
11 location server, to perform registration; and

12 transmitting by the location server a predetermined message informing of a status after
13 performing the registration .